

Appln. No. 10/802,194

Attorney Docket No. 10541-1989

II. Listing of Claims

1. (Currently Amended): A heat exchanger assembly for motor vehicles, whereby air to be heated can be additionally heated by a refrigerant circuit operable as a heat pump or short circuit to provide additional heating, said assembly comprising:

a heating heat exchanger having a plurality of coolant tubes connected to ~~a unit including a coolant collector region and a coolant distributor region~~ in a coolant circuit wherein the plurality of coolant tubes are configured to distribute coolant from the coolant distributor region and return the coolant back to the coolant collector region, the coolant tubes also having a heat exchanging surface for exchanging heat between a fluid circulating in the coolant circuit and the air to be heated; and

a gas condenser having a plurality of refrigerant tubes connected to the unit, ~~the unit including a refrigerant collector region and a refrigerant distributor region~~ in the refrigerant tubes being part of a refrigerant circuit wherein the plurality of refrigerant tubes are configured to distribute refrigerant from the refrigerant distributor region and return the refrigerant back to the refrigerant collector region, the refrigerant tubes also having a heat exchanging surface for exchanging heat between a refrigerant circulating in the refrigerant circuit and the air to be ~~heated~~, heated; and

wherein the refrigerant collector region and the refrigerant distributor region are both ~~[[is]]~~ at least partly surrounded by the coolant collector ~~region~~, region and the coolant distributor region; and

wherein the plurality of coolant tubes are arranged in a first row and the plurality of refrigerant tubes are arranged in a second row, the plurality of refrigerant tubes being arranged after the plurality of coolant tubes in a direction of the passing air to be heated.

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2. Canceled

3. Canceled

4. (Previously Presented): The assembly of claim 1 wherein said coolant tubes and said refrigerant tubes are arranged next to each other and are parallelly passed by air.

5. (Original): The assembly of claim 4 wherein said coolant tubes and refrigerant tubes are arranged alternating next to each other.

6. Canceled

7. (Withdrawn): The assembly of claim 1 further comprising a collector unit having a coolant region and a refrigerant collector region, whereby said refrigerant collector region has no common boundary surface with said coolant region and is arranged thermally separated of it outside of the coolant collector region.

8. (Withdrawn): The assembly of claim 7 wherein alternately, partly instead of coolant tubes, refrigerant tubes are arranged comb-like in a row of the heating heat exchanger and the refrigerant collector regions are connected over connection tubes to the refrigerant tubes and because the refrigerant collector regions are arranged outside of the coolant collector region the resulting comb design realizes a good thermal separation of the coolant circuit and the refrigerant circuit.

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